

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please ADD claim 28 in accordance with the following:

1. (PREVIOUSLY PRESENTED) An apparatus for checking user identification, comprising:
 - an arithmetic-formula storing unit configured to store user-defined arithmetic formulas associated with respective users, the arithmetic formulas defining calculation of variables that are assigned to respective digit positions arranged on a display screen;
 - a display unit configured to display random digits at the respective digit positions arranged on the display screen when a user logs in; and
 - a matching unit configured to retrieve from said arithmetic-formula storing unit one of the arithmetic formulas corresponding to a user identifier in response to the user input of the user identifier and an identification-purpose number, to calculate a value of said one of the arithmetic formulas by assigning the random digits to said one of the arithmetic formulas, to compare the value with the identification-purpose number, and to authenticate the user in response to a match therebetween.
2. (PREVIOUSLY PRESENTED) The apparatus as claimed in claim 1, wherein said matching unit utilizes a predetermined number as said value in response to determination that said value is impossible to calculate based on the random digits and said one of the arithmetic formulas.
3. (PREVIOUSLY PRESENTED) The apparatus as claimed in claim 1, wherein the variables include information about a date and time at which an identification process is performed.
4. (PREVIOUSLY PRESENTED) An apparatus for checking user identification, comprising:

a user-authentication card configured to store a user-defined arithmetic formula, the arithmetic formula defining calculation of variables that are assigned to respective digit positions arranged on a display screen;

a display unit configured to display random digits at the respective digit positions arranged on the display screen when a user logs in; and

a matching unit configured to calculate a value of the arithmetic formula by assigning the random digits to the arithmetic formula stored in said user-authentication card, to compare the value with an identification-purpose number entered by the user, and to authenticate the user in response to a match therebetween.

5. (PREVIOUSLY PRESENTED) The device as claimed in claim 4, further comprising a registration/updating unit which updates one of the user-specific formulas in the control-data unit with a user-entered formula only if the user entering the user-entered formula proves knowledge of said one of the user-specific formulas by entering said one of the user-specific formulas.

6-15. (CANCELLED)

16. (PREVIOUSLY PRESENTED) The apparatus as claimed in claim 1, wherein when the user enters a wrong user-entered value, the user is allowed to enter a new user-entered value in response to at least one new randomly generated number being presented to the user.

17-27. (CANCELLED)

28. (NEW) A method of authenticating identity of a user to enable the user to gain access to a system, comprising:

displaying a randomly generated number having digits displayed at respective positions to a user;

generating a check value using a user-defined arithmetic formula of the user and the displayed randomly generated number including the respective positions of the digits displayed; and

enabling access to the system when a value entered by the user responsive to the

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displayed randomly generated number matches the check number.